

Your Magazine

“You won’t find a more captive audience for your publicity campaign than inside an airplane, at 36,000 feet in the air. Bored and restless, passengers often pull the magazines out of the pockets in front of them, flip through the pages, then settle in for an hour of reading. . . . many of the in-flight publications concentrate on a wide variety of general-interest topics such as technology, business, entertainment, beauty, and fashion.”

—Quoted from 101PublicRelations.com

Surely, you’ve read in-flight magazines, even when you’ve had work to do. Articles on fascinating subjects such as the science of laughter and the world’s best concierge are hard to resist. But suppose you’d tucked the magazine you’re now reading into the seat pocket in front of you and then inadvertently abandoned it upon reaching your destination. What chain of events might such an oversight bring about?

I fantasize an impressionable, young person encountering this neglected magazine, who, after a moment of puzzlement, becomes intensely attracted to the wonders of control system technology. This budding systems scientist would cherish this issue for the life-long passion that it inspired in this crucial, but unassuming, corner of science and technology.

On the other hand, the random reader of this magazine might view it as you might react to, say, *Dulcimer Players News*, *A Quarterly Magazine for the Mountain and Hammered Dulcimers* or *Bead & Button*, *Creative Ideas for the Art of Beads and Jewelry*. While these periodicals surely have their devoted followers, you might give them a quick flip through but probably not decide to change your career.

Like Lola running, we just don’t know how small details and chance encounters affect the paths of our

lives...an overheard conversation...a musty book...a next-door neighbor. All of these random minutiae have accumulated inexplicably to bring you to your present reality.

Your link to *IEEE Control Systems Magazine (CSM)* is a product of this minutiae, and the articles that you find inside it are the work of others traveling along similar trajectories. The magazine is an ongoing conversation about control systems science and technology, and you are cordially

invited to join in that conversation.

Each issue of *CSM* contains several features that describe substantive work. We don’t expect these articles to present new theory. Rather, we encourage articles that illuminate theories developed elsewhere so that nonexperts can appreciate those developments. Interesting applications of control ideas and control technology are especially welcome, where engineers wrestle with real technology and exquisite equations



Dennis Bernstein enjoys the company of Jan Willems (left) and Bart De Moor while visiting the Katholieke Universiteit Leuven, Belgium.

and billions of bits confront the brazen grime of greasy bearings.

Every item published in this magazine is meant to be educational in some way. Explicitly educational articles are published as "Lecture Notes." Have a new way to explain Hankel operators or hunting oscillations? "Lecture Notes" are the way to go. Want to provide a vision for viable control education? Then "Focus on Education" is your column. Want to warn students about the dangers of nonminimum phase zeros, integrator windup, or backlash? Then the "Student's Guide" is the venue for you.

"Tales of Automatic Control" and "Historical Perspectives" recount the fascinating history of control systems technology. Ever wonder how a person made it to the moon without much digital electronics? Curious about the role played by analog com-

puters? While our technology has progressed far, our systems world view often transcends the details of technology. So, your processor is ten times faster than it was ten years ago? Great, but the specifications got tougher along the way, and noise and uncertainty are here to stay. Ours is ultimately a systems technology, where everything is relative. History teaches us about the timelessness of our challenges while paying homage to the pioneers.

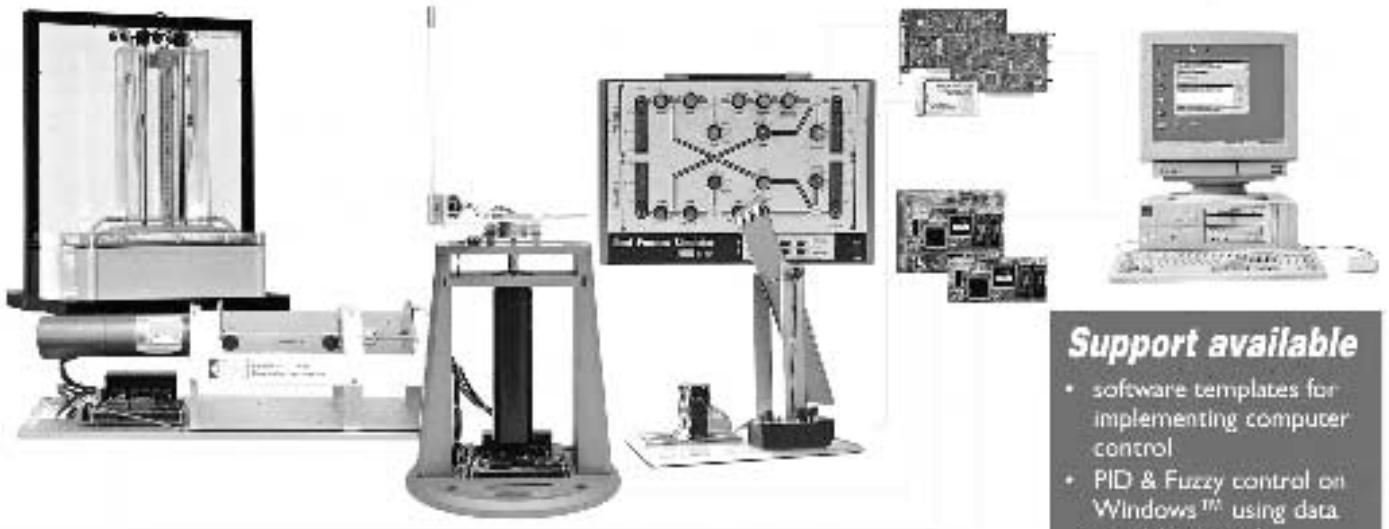
And we value your opinion. Want to predict or shape the future of control? Want to suggest new ways to interact with other disciplines? Want to remind us about the value of theory for practice or tell us about the challenges of practice that are beyond any theory? Want to caution us about the demons of complexity? Then "Feedforward" is your cup of tea.

This is your magazine. Write for us, all of us. Join the conversation, so it is truly a feedback system. But if, after you publish your best control-related work in *IEEE Control Systems Magazine*, you inadvertently leave an issue in the seat pocket on an airplane, then don't mourn the loss, but rather take heart that your article might inspire the fortuitous finder to follow in your footsteps. And you just might be able to compete with beauty and fashion at 36,000 feet.



Dennis S. Bernstein
Editor-in-Chief
IEEE Control Systems Magazine

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